

ABSTRACT

A data transfer device is disclosed for writing data to and reading data from a disk drive system through a plurality of ports of the data transfer device. The data transfer device includes a first buffer for serially receiving, from a host system, control portions of data read requests and data write transfers; a second buffer for serially receiving, from the host system, data portions of data write transfers received by the first buffer; and N temporary storage devices, wherein N is a positive integer, coupled to the first buffer and the second buffer, the N temporary storage devices for parallelly receiving and temporarily storing consecutive control portions of the data read transfers and data write transfers from the first buffer. Up to N of the data read transfers and data write transfers are transferred to the disk drive system through the plurality of ports simultaneously.